

Claims

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What is claimed is:

1. A body frame structure for a vehicle comprises:

a longitudinal frame member having a front portion, a rear portion, and a kick-up portion, such that said front portion and said rear portion are selectively shifted relative to each other in a vertical direction around said kick-up portion; said front portion being bent and deformed upwardly around said kick-up portion when a collision load is selectively applied to said longitudinal frame member; a bent deforming guide member provided within said longitudinal frame member adjacent to said kick-up portion to at least partially constrain said front portion of said longitudinal frame member to bend and deform in a lateral direction of the vehicle when said collision load is selectively applied in the form of an applied frontal collision load.

2. The body frame structure according to claim 1, wherein said bent deforming member comprises a front guide member and a rear guide member, and said front guide member and said rear guide member are provided adjacent to each other in front and rear sides of a portion of a dash panel of the vehicle.

3. The body frame structure according to claim 1, wherein said bent deforming member is provided on a front side of said portion of the dash panel.

4. The body frame structure according to claim 1, wherein said bent deforming member comprises a front guide member and a rear guide member formed so as to be shifted relative to each other on an inner wall and an external wall of said longitudinal frame member, respectively.

5. The body frame structure according to claim 4, including a diagonally extending bar having a front edge thereof connected to a portion of said body frame structure where said rear guide member of said longitudinal frame structure is provided.

6. The body frame structure according to claim 1, wherein at least one of said front guide member and said rear guide member has an opening in the lateral direction of the vehicle, and said opening penetrates through at least one of an outer wall and an inner wall of said longitudinal frame member.

7. The body frame structure according to claim 6, wherein side open circumferential edges of said at least one of said front guide member and said rear guide member are fixed to edges of a through-hole of said outer wall and said inner wall, respectively.

8. The body frame structure according to claim 6, wherein a bracket projecting in the lateral direction of the vehicle, to which a member is attached, is provided in

said side open circumferential edge of one of said front guide member and said rear guide member.

9. The body frame structure according to claim 7, wherein a bracket projecting in the lateral direction of the vehicle, to which a member is attached, is provided in said side open circumferential edge of one of said front guide member and said rear guide member.

10. A collision energy absorbing method using a body frame structure including a longitudinal frame member having a front portion, a rear portion and a kick-up portion, and a bent deforming guide member provided inside said longitudinal frame member adjacent to said kick-up portion, comprising the steps of:
selectively shifting said front portion and said rear portion relative to each other in a vertical direction around said kick up portion;
selectively bending and deforming said front portion upwardly around said kick-up portion when a collision load is applied to said longitudinal frame member, and
using said bent deforming guide member and selectively constraining said front portion to bending and deforming in a lateral direction of the vehicle during an applied frontal collision load.

11. A longitudinal frame member assembly for a vehicle, comprising:
a longitudinal frame member having a front portion and a rear portion, which are selectively shifted relative to each other in a vertical direction, and
a front guide member and a rear guide member provided inside said longitudinal frame member, whereby said front portion is selectively bent and deformed in a lateral direction of said vehicle by colliding said guide members with each other when a frontal collision load is applied to the longitudinal frame member.